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S/020/62/143/006/005/024
B125/B112

16.2450

AUTHOR: Tupchiyev, V. A.

TITLE: Asymptotic solution of a boundary problem for a system of first-order differential equations with small parameters in the derivation

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 6, 1962, 1296-1299

TEXT: The asymptotic solution of the system $\mu \frac{dy}{dt} = F(y, x, t)$,
 $\frac{dx}{dt} = f(y, x, t)$ (1) is considered. From this system and the additional conditions $\alpha y(0) + \beta y(1) = y^0$, $x(0) = x^0$ (1'), the system $0 = F(y, x, t)$,
 $\frac{dx}{dt} = f(y, x, t)$ with the additional condition $x(0) = x^0$ follows for $\mu = 0$. The solution $\{\bar{y}(t), \bar{x}(t)\}$ for $\mu = 0$ is assumed to be known.
 $n_1 + n_2 = n$; y and x are vectors with the dimensions n and m , respectively,
and μ is a small parameter. The following conditions are assumed to be fulfilled: (1) The functions $F(y, x, t)$ and $f(y, x, t)$ have $(n+1)$ -th and n -th derivatives with respect to all arguments in the region $|y - \bar{y}(t)| < \gamma$,
 $|x - \bar{x}(t)| < \varepsilon$, $0 \leq t \leq 1$. $\gamma > 0$ and $\varepsilon > 0$ are sufficiently small constants. On

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Asymptotic solution of a ...

the sets $|y - \bar{y}(0)| < \gamma$, $x = \bar{x}(0)$, $t = 0$; $|\bar{y} - y(1)| < \gamma$, $x = \bar{x}(1)$, $t = 1$ there are $(2n+1)$ -th and $2n$ -th derivatives with respect to y . (2) A real, singular matrix $P(t) \in C^1(0 \leq t \leq 1)$ exists so that $P^{-1}(t)F_y(t)P(t) = \begin{pmatrix} B(t) & 0 \\ 0 & C(t) \end{pmatrix}$. $B(t)$ and $C(t)$ are matrices of the order $n_1 \times n_1$ and $n_2 \times n_2$ with negative and positive real parts.

(3) $F_y^{-1}(t)F_x(t) \in C^1(0 \leq t \leq 1)$. In this case, $F = F(y, x, t)$, $\bar{F} = \bar{F}(\bar{y}, \bar{x}, t)$, $\bar{F}_y = F_y(t)$, and analogous relations hold for $f, f(t), \bar{f}, \bar{f}_y$. If the three conditions presented above are satisfied, the estimates $|y - Y_n|$, $|x - X_n| < C\mu^{n+1}$ ($0 \leq t \leq 1$) with

$$\begin{aligned} Y_n = & \overset{(0)}{y^0} + \overset{(1)}{y^0} + \dots + \overset{(n)}{y^0} + \overset{(0)}{y^1} + \overset{(1)}{y^1} + \dots + \overset{(n)}{y^1} + \bar{y} + \mu \bar{y}_\mu + \dots + \frac{\mu^n}{n!} \bar{y}_{\mu^n} - \\ & - \left[\overset{(0)}{(y^0)} + \dots + \overset{(n)}{(y^0)} + \mu \overset{(1)}{(y_\mu^0)} + \dots + \overset{(n)}{(y_\mu^0)} + \dots + \frac{\mu^n}{n!} \overset{(n)}{(y_\mu^0)} \right] - \\ & - \left[\overset{(0)}{(y^1)} + \dots + \overset{(n)}{(y^1)} + \mu \overset{(1)}{(y_\mu^1)} + \dots + \overset{(n)}{(y_\mu^1)} + \dots + \frac{\mu^n}{n!} \overset{(n)}{(y_\mu^1)} \right]. \end{aligned}$$

are valid. Here, C is independent of t and μ . A similar expression holds.

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Asymptotic solution of a ...
for x_n .

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ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V.
Lomonosova (Moscow State University imeni M. V. Lomonosov)
PRESENTED: December 9, 1961, by I. G. Petrovskiy, Academician
SUBMITTED: November 30, 1961

Card 3/3

LYUBICHENKO, I.S.; TUPCHIYEV, V.A.

Asymptotic solution of problems of determining the temperature field
of blades of gas turbines. Vest. Mosk. un. Ser. 1: Mat., mekh. 20
no.1:52-60 Ja-F '65.

(MIRA 18:4)

1. Kafedra matematiki fizicheskogo fakul'teta Moskovskogo universiteta.

TURCANU, Al.G.; MARINOV, Illeana

Action exercised by Brucella suis on experimental allergization
by means of horse serum. Arch. roum. path. exp. microbial. 22
no.4:1023-1030 S-D'63.

1. Institut "Dr. I.Cantacuzino" (for Turcanu). 2. Hopital d'Etat
no.22 , Maladies des yeux (for Marinov).

VASIL'YEVA, A.B.; TUPCHIYEV, V.A.

Asymptotic formulas for solving the boundary value problem for an equation of the second order with a small parameter at the highest derivative. Dokl. AN SSSR 135 no.5:1035-1037 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavлено akademikom I.G. Petrovskim.
(Boundary value problems) (Differential equations)

163400

35533

S/020/62/142/006/005/019
B112/B108AUTHOR: Tupchiyev, V. A.

TITLE: Existence, uniqueness, and asymptotic behavior of the solution of a boundary value problem for a system of differential equations with a small parameter at a higher derivative

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 6, 1962, 1261-1264

TEXT: The author considers the boundary value problem

 $\mu^2 \frac{d^2 z}{dt^2} = F(z, y, t), \frac{dy}{dt} = f(z, y, t), z(0) = z(1) = y(0) = 0,$
where μ is a small parameter. It is demonstrated that on certain conditions concerning the solution $\{\bar{z}(t), \bar{y}(t)\}$ for $\mu = 0$ and the differentiability of F and f , there is an unambiguous solution. This solution is approximated by expressions of the form

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Existence, uniqueness, and ...

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$$Z_n = z^0 + z^1 + \dots + z^n + z^1 + z^1 + \dots + z^n + \bar{z} + \mu z_\mu + \dots + \frac{\mu^n}{n!} \bar{z}_{\mu^n} -$$

$$\left[(z^0 + z^1 + \dots + z^n) + \mu (z_\mu^0 + \dots + z_\mu^n) + \dots + \frac{\mu^n}{n!} z_{\mu^n}^0 \right] -$$

$$- \left[(z^1 + z^1 + \dots + z^n) + \mu (z_\mu^1 + \dots + z_\mu^n) + \dots + \frac{\mu^n}{n!} z_{\mu^n}^1 \right].$$

which are obtained by substituting the expansions

$$z = z_0(\tau) + \bar{z}\tau_1(\tau) + \dots + z_n(\tau) + \dots,$$

$$y = y_0(\tau) + y_1(\tau) + \dots + y_n(\tau) + \dots$$

to the system $d^2z/d\tau^2 = F(z, y, t^0 + \mu\tau)$, $dy/d\tau = f(z, y, t^0 + \mu\tau)$.

There are 5 references: 4 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: M. Nagumo, Proc. Phys. Math. Soc. Japan, Ser. III, 19, 861 (1937).

ASSOCIATION: Moskovskiy gosudarstvenny universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

Card 2/3

Existence, uniqueness, and ...

S/020/62/142/006/005/019
B112/B108

PRESENTED: September 20, 1961, by I. G. Petrovskiy, Academician

SUBMITTED: September 13, 1961

Card 3/3

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TIPCHIEV, V.A.

Corner solutions of boundary value problems with a small parameter of the derivative in a system of first-order equations. Vest.Mosk.un.Ser. 1: Mat., mekh. 18 no.3:17-24
My-Je '63. (MIRA 16:6)

1. Kafedra matematiki fizicheskogo fakul'teta Moskovskogo universiteta.

(Boundary value problems) (Differential equations)

L 18517-63

EWT(d)/FOC(w)/BDS AFFTC/IJP(C)

8/0055/63/000/003/0017/0024

ACCESSION NR: AP3001034

54

52

AUTHOR: Tupchiyev, V. A.

TITLE: Angular solutions of boundary value problems with small parameter on the derivative in a system of first order equations

16

SOURCE: Moscow. Universitet. Vestnik. Seriya I. Matematika, mehanika, no. 3, 1963, 17-24

TOPIC TAGS: differential equation, small parameter, boundary value problem, angular solution

ABSTRACT:

The paper is concerned with the system

$$\begin{aligned} \mu \frac{dz}{dt} &= F(z, y, t), \\ \frac{dy}{dt} &= f(z, y, t) \end{aligned} \quad (1)$$

subject to the boundary conditions

$$y(0) = y(1) = 0 \quad (1')$$

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ACCESSION NR: AP3001034

Condition 1. There exist three isolated roots

$$z = \varphi_i(y, t), \quad i = 0, 1, 2,$$

of the system

$$0 = F(z, y, t),$$

which are defined in some part of the strip $|y| < \infty$, $0 \leq t \leq 1$, and are such that the characteristic equation $\det |F_i - E\lambda|_{z=\varphi_i(y,t)} = 0$

has 1 and 2-i roots with negative and positive real parts respectively. Theorem. Suppose in addition to condition 1 and several others too lengthy to state here that $F(z, y, \mu)$ and $f(z, y, t)$ have continuous partial derivatives in all arguments up to $n+1$ st and n th order respectively, and that on the sets

$$\varphi_0(t_0) \leq z \leq \varphi_1(t_0), \quad t = t_0,$$

$$\varphi_1(t_1) \leq z \leq \varphi_2(t_1), \quad t = t_1,$$

they have derivatives in z up to $2n+1$ st and $2n$ th order respectively; then there exists a unique solution of the problem (1), (1'), and $x(t, \mu)$, such that

$$|x - X_n| < C\mu^{n+1},$$

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ACCESSION NR: AP3001034

where C does not depend on μ and t. The asymptotic has the form

$$X_n = \begin{cases} X_{n0} & 0 < t < t_0, \\ X_{n1} & t_0 < t < t_1, \\ X_{n2} & t_1 < t < 1, \end{cases}$$

where X_{n0} , X_{n2} are constructed by the method of A. B. Vasil'eva (Asimptoticheskiye metody v teorii obyknovennykh differentsial'nykh uravneniy s malyimi parametrami pri starshikh proizvodnykh. Dissertatsiya. Matematicheskiy institut im. V. A. Steklova, 1960) and X_{n1} by the method of V. A. Tupolyev (Asimptotika resheniya krayevoy zadachi dlya sistemy differentsial'nykh uravneniy pervogo poryadka s malym parametrom pri proizvodnoy. DAN SSSR, 143, No. 6, 12-99, 1962) and are special power series in μ with coefficients which are functions of a special form given in the paper. The author thanks A. B. Vasil'eva for the statement of the problem and discussions of the results. Orig. art. has 8 formulas.

ASSOCIATION: Moskovskiy universitet, kafedra matematiki fizicheskogo fakul'teta
(Moscow University, Department of Physics, Chair of Mathematics)

SUBMITTED: 31Mar62

DATE ACQ: 17Jun63

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 001

Card 3/3

TITLE: Asymptotic solution of problems of the temperature field in gas turbine
blades 21

SOURCE: Moscow. University, Faculty of Mathematics, Mechanics, etc.,
1965. 57 p.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9

| ASSOCIATION: Kafedra matematiki fizicheskogo fakulteta Moskovskogo gosudarstvennogo universiteta "M. V. Lomonosova" (Moscow State University).

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9"

VAKIN, A.T., prof.; GOLOVIN, P.N., prof., doktor biolog.nauk; DOBROZRAKOVA, T.L., dotsent; ZHURAVLEV, I.I., doktor sel'skokhoz.nauk; POLYAKOV, I.M.; SOKOLOV, D.V., dotsent; STEPANOV, K.M., doktor biolog.nauk; TUPENEVICH, S.M., prof.; FEDORINCHIK, N.S., kand.sel'skokhoz.nauk; PEDOTOVA, T.I., doktor sel'skokhoz.nauk; KHOKHRYAKOV, M.K., doktor biolog.nauk; CHIGAREV, G.A., kand.sel'skokhoz.nauk; YATSEMKO, I.P., prof. [deceased]; REUTSKAYA, O.Ye., red.; CHUNAYEVA, Z.V., tekhn.red.

[A phytopathologist's dictionary - reference book] Slovar'-spravochnik fitopatologa. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 414 p.

(MIRA 13:1)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Polyakov).

(Plant diseases--Dictionaries)
(Russian language--Dictionaries)

~~TOP SECRET~~, D. A.

Measures against clubroot of cabbage

Mensk, Narkamzem, 1927.

31 p.

TUPENEVICH, S.M., dr. sel'skokhoz. nauk, EGAMOV, I.

Manure-soil composts as a means of controlling cotton wilt.
Agrobiologiya no.2:254 259 Mr-Ap '64. (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zashchity
rasteniy, Leningrad.

TUPENEVICH, S. M.

"Diseases of Lupine Seed in Belorussian SSR in 1930," Zashchita Rastenii,
no. 1, 1932 pp. 81-96. 421 D36

So: Sl-90-53, 15 Dec. 1953

TUPENEVICH, S. M.

"Preliminary Results of Works on Fusariosis of Grains in the Problem
of 'White Spots,'" Biulleten' VII Vsesoiuznogo S'ezda po Zashchite
Rastenii v Leningrade 15-23 Noiabria 1932 Goda, no. 8, 1932, pp. 15-18.
423.92 V96

So: Sira Sl-90-53, 15 Dec. 1953

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9

TUPELEVICH, S. M.

Problems in the control of orchard diseases and pests.

Mensk, Sel'gassektar, 1933.

56 p.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9"

TUPENEVICH, S.M.

"How to Conduct the Struggle with Fusariosis of Wheat in Areas of 'White Spots'," Sbornik Vsesoiuznogo Instituta Zashchite Rastenii, no. 5, 1933, pp. 93-96. 464.9 L542

So: Sira Sl-90-53, 15 Dec. 1953

TUPENEVICH, S. M.

"Diseases of Wheat in the North and Control Measures," Sbornik Vsesoiuznogo
Instituta Zashchity Rastenii, no. 7, 1933, pp. 31-37. 464.9

SO: SIRA SI 90-53, 15 Dec 1953

TUPENEVICH, S. M.

"Agrotechnics in the Control of Grain Diseases," Sbornik Vsesiuзнogo
Instituta Zashchity Rastenii, no. 3, 1934, pp. 13-17. 464.9 L5/2

So: S1-90-53, 15 Dec. 1953

TUPENEVICH, S. M.

"Methods of Evaluating Standard Varieties of Spring Wheat for Resistance to Fusariosis," in Systematich Instructions on the Plan of Research Work of the All Union Institute of Plant Protection in 1935, Institute of Plant Protection, Leningrad, 1935, pp. 9-12. 464.4 L54M

So: Sira S1-90-53, 15 Dec. 1953

TUFENEVICH, S.M.

"Field Observations on the Dying-off of Winter Crops in the Spring from Rotting under the Influence of Snow Mold," in Systematic Instructions on the Plan of Research Work of the All Union Institute of Plant Protection in 1935, Institute of Plant Protection, Leningrad, 1935, pp. 12-19.
464.4 154M

So: Sira Sl-90-53, 15 Dec. 1953

TUFENEVICH, S. M.

and MAKLAKOVA, G. F. "Instructions for the Determination of the Infection of Spring Wheat with Rust and Fusariosis in Connection with Agrotechnical Measures," in Systematic Instructions of the Plan of Research Work of the All Union Institute of Plant Protection in 1935, Institute of Plant Protection, Leningrad, 1935, pp. 12-19. 164.4 L54M

So: Sira Sl-90-53, 1st Dec. 1953

TUPENEVICH, S. M.

Butylina, V. I. [Co-author] See : Tupenevich, S. M. "Evaluation of Spring Wheat Varieties for Resistance to Fusarium Induced Diseases," 1936

So: SIRA SI - 90-53 15 Dec., 1953

TUPENEVICH, S. M.

TUPENEVICH, S. M. "Estimation of the Effect of Dates of Sowing and of Vernalization
of Winter Wheats on the Control of Fusariuminduced Diseases,"
Itogi Nauchno-Issledovatel'skikh Rabot Vsesoiuznogo Instituta
Zashchity Rastenii za 1935 Goda, 1936, pp. 126-128. 423.92 L541

SO: SIRA SI - 90-53, 15 December 1953

TUPENEVICH, S. M.

TUPENEVICH, S. M., BUTYLINA, V. I., LISITSINA, M. I. and OSTRYEKOVSKIY, M.
"Evaluation of Spring Wheat Varieties for Resistance to Fusarium-
induced Diseases," Itogi Nauchno-Issledovatel'-skikh Rabot
Vsesoiuznogo Instituta Zashchity Rastenii za 1935 Goda, 1936.
pp. 139-141. 423.92 L541

SO: SIRA SI - 90-53, 15 December 1953

TUPENEVICH, S. M.

TUPENVICH, S. M., and SHIRKO, V. M. "Investigation of the Conditions Conducive to Winter Killing of Winter Sown Cereals," Itogi Nauchno-Issledovatel'skikh Rabot Vsesoiuznogo Instituta Zashchity Rastenii za 1935 Goda, 1936
pp. 143-144. 423.92 L541

SO: SIRA SI - 90-53, 15 December 1953

TUPENEVICH, S. M.

TUPENEVICH, S. M. "Fusariosis of Cereals in 1934-1935," in The Principal Pests and Diseases of Crop Plants in the U.S.S.R., Institute of Plant Protection, Leningrad, 1936, pp.155-171. 464 L542

SO: SIRA SI - 90-53, 15 December 1953

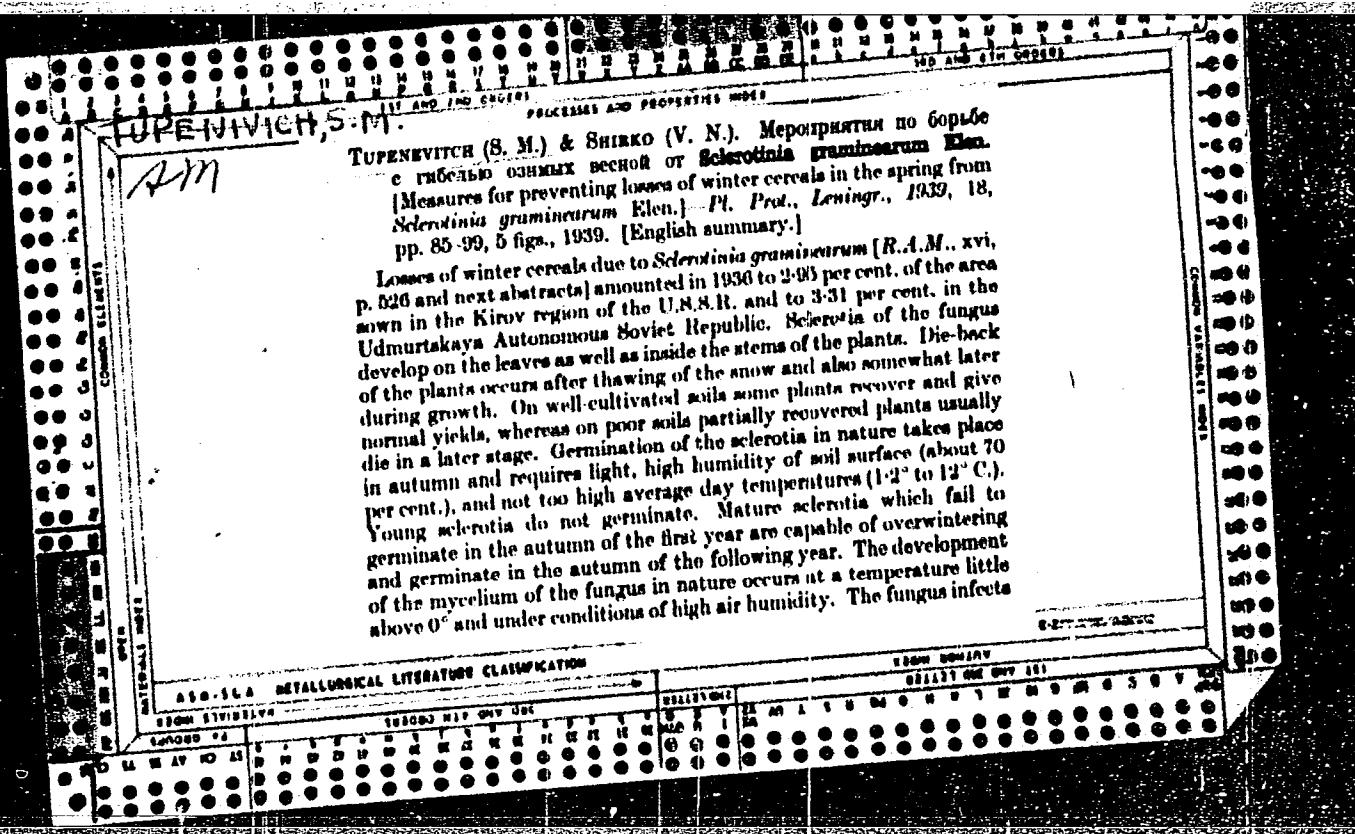
TUPENEVICH, S. M.

"Fusariosis of Wheat; Results of Research on This Subject", Trudy Voronezhsk. STAZ-
RA, No. (12), 1936.

TUPENEVICH, S. M.

TUPENEVICH, S. M. "Some Data on the Bio-ecology of Fusarium nival (Fr.) Ces. Causing
'Snow Mold' on Winter Grain," Itogi auchno-Issledovatel'skikh
Rabot Vsesoiuznogo Instituta Zashchity Rastenii za 1936 Goda.
part 1, 1937, pp. 119-122. 423.92 L541

SO: SIRA SI - 90-53, 15 December 1953



winter wheat and rye, timothy (*Phleum pratense*), French rye grass (*Lolium perenne*), and other grasses have not been observed to attack a summer crop. The recommendations for the control of the disease include: crop rotation; application of mature and other organic fertilizers (composted turf, green manure); liming of acid soils; draining of excessively moist fields and accelerating the melting of snow by scattering fine peat over it; deep and early ploughing of fields where winter crops were badly affected by the disease in order to prevent germination of sclerotia in the autumn; eradication of susceptible cereal weeds; harrowing of winter sowings in the spring; burning of dry leaves with sclerotia collected during harrowing; and growing of resistant varieties. In 1931, during a serious outbreak of the disease, the varieties Erythro-petrum 0529 and Luteschmidt appeared to be very resistant.

TUPENEVICH, S. M.

TUPENEVICH, S. M., "The Causes of Out-breaks of Severe Development of Sclerotinia and Fusarium nivale on Winter Sowings and Withering of Agricultural Crops," Itogi Nauchno-Issledovatel'skikh Rabot Vsesoiuznogo Instituta Zashchity Rastenii za 1939 Goda, 1940, pp. 67-71.
423.92 L541

SO: SIRA SI - 90-53, 15 December 1953

TUPENEVICH, S. M.

TUPENEVICH, S. M. "The Relation of Varieties of Winter Wheat to Snow Mold in Connection with State of Development," Vestnik Zashchity Rastenii, no. 1-2, 1940, pp. 260-267. 421 P942

SD: STRI SI - 90-53, 15 December 1953

TUPENEVICH, S.M., doktor sel'skokhozyaystvennykh nauk

Root rot and kernel smudge in wheat caused by Helminthosporium
sativum P.K. et B. Trudy VIZR no.1:3-31 '48.
(Wheat--Diseases and pests) (Root rot)

(MIRA 11:7)

1. TUPENEVICH, S. M.

2. USSR (600)

7. "Increasing the Resistance of Table Beet Sprouts to the Causative Agent of Root Rot by Growing the Seed in Local Conditions", Trudy Vsesoyuzn. In-ta Zashchity Rasteniy (Works of the All-Union Institute of Plant Protection), No 3, 1951, pp 3-21.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

TUPENEVICH, S.M.

USSR/Cultivated Plants - Grains

M-4

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1474

Author : S.M. Tipenevich

Inst : All-Union Institute for the Protection of Plants

Title : Increasing the Resistance of Winter Wheat Against Snow Mold
and Rust by Using Minimal Quantities of Humus Mixed with Super-
phosphate and Lime.

Orig Pub : Sb. robot In-ta prikl. zool. i fitopatol., 1956, issue 4, 101-111

Abstract : Tests were carried out in crop-rotation on 7 fields in the Pushkin experimental base of the VIZR [All-Union Scientific Research Institute for the Protection of Plants] (podzolic soil with pH 5.8 - 6.0). The application of humus (2 tons per hectare) mixed with superphosphate (2 centners per hectare) and lime (3 centners per hectare) according to the method of T.D. Lysenko has increased the sprouting of wheat spikes during the fall period, and has accelerated the earlier onset of individual phases of vegetation. The amount of plants of winter wheat having wintered increased from 80 to 63-89% and the plant fall out decreased about 1.3-3.5 percent (the

Card : 1/2

TUPENEVICH, S. M.

N-3

USSR / Plant Diseases. Diseases of Cultivated Plants

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22972

Author : Tupenevich, S.M., Shirko, V.N.
Title : The Study of Cabbage Seedling Diseases.

Orig Pub : Sb. rabot In-ta prikl. zool. i fitolatol., 1956, No 4,
147-154

Abstract : The causes of cabbage seedling disease are clarified. The chief source of cabbage style disease during storage is grey putrescence caused by Botrytis cinerea Pers. When affected by B. cinerea the uppermost stem bud in cabbage is destroyed and the main flower-bearing bud does not develop. The fruit and seeds developed from side flower-bearing buds are easily affected by Alternaria brassiceae, which causes seed quality deterioration. To improve the quality of cabbage seeds and to protect them from A. Brassiceae, measures should be taken to prevent development of grey mold on cabbage heads and the uppermost stem bud. Recommendations for preventive measures are stated.

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"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9

TUPENOVICH, S.M.

Achievements of Soviet phytopathology in the last 30 years.
(MIRA 19:2)
Trudy VIZR no 78-86 '64.

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CIA-RDP86-00513R001757510006-9"

TUPENEVICH, S.M., doktor sel'skokhoz. nauk

Controlling clubroot. Zashch. rast. ot vred. i bol. 8
no.10:38-39 O '63. (MIRA 17:6)

1. Vsesoyuznyy institut zashchity rasteniy.

LISAVENKO, M.A.; POLYAKOV, I.M.; GORLENKO, M.V., prof.; DUNIN, M.S., prof.;
TUPENEVICH, S.M., prof.

P.N. Davydov; obituary. Zashch. rast. ot vred. i bol. 4 no.2:63 Mr-Ap '59.
(MIRA 16:5)

1. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh
nauk im. Lenina (for Lisavenko). 2. Chlen-korrespondent
Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. Lenina (for
Polyakov).

(Davydov, Pavel Nikolaevich, 1890-1958)

TUPERNAN, M.

Measuring necessary for raising the technical level. p. 53.
(Industria Textila, Vol.8, No. 2, Feb. 1957, Bucuresti,Rumania)

SO: Monthly List of East European accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

TUPERMAN, M., ing.; VLADUT, N., ing.; FLORESCU, N., ing.; ROLL, M.,
ing.

Use of modern technique for improving cotton yarn quality.
Ind text Rum 15 no. 2:66-70 F '64.

TUPERMAN, M., ing.

Research on the utilization of polynosic fibers. Ind text
Rum 16 no.1;18-23 Ja '65.

1. Institute of Textile Research, Bucharest.

TUPERMAN, M.

TUPERMAN, M. Making sure of technical progress in the cotton-spinning factories
in the second Five-Year Plan. Pt. . 1. (To be continued) P. 450.

Vol. 7, No. 10, October 1956

INDUSTRIA TEXTILA

TECHNOLOGY

Bucuresti

So: East European Accession, Vol. 7, No. 3, March 1957

time of the blades of a gas-turbine engine

SOURCE: Moscow, Aviatcionnyy tekhnologicheskiy institut, Trudy, no. 60, 1964.
Povyshenie resursa raboty aviatcionnykh detaley tekhnologicheskimi sredstvami
(Increasing the service life of aircraft parts by technological procedures), 72-167

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fatigue tests were carried out with the cooperation of Eng. V. M. Gopakov and laboratory assistants N. P. Mikhaylov and V. P. Sorokin; general supervision for the entire study

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APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9"

TUPICHENKO, A.A.

Determination of some physical parameters of liquefied industrial hydrocarbons. Izv. vys. ucheb. zav.; neft' i gaz 4 no.4:97-101 '61. (MIRA 15:5)

1. Azerbayzhanskiy institut nefti i khimii imeni M.Azizbekova.
(Azerbaijan--Hydrocarbons)

22284

11.1210

S/152/61/000/004/007/009
B126/B219

AUTHOR: Tupichenkov, A. A.

TITLE: Determination of some physical parameters of commercial liquid hydrocarbons

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 4, 1961, 97-101

TEXT: The author investigated the specific gravity and viscosity of hydrocarbons as well as the dependence of these values on temperature at constant pressure and the dependence of the viscosity on pressure at a constant temperature. These data are very important for the determination of the hydraulic drag of liquefied hydrocarbons in pipelines and are hardly available from technical publications. In the present experiments, specific gravity was determined by static weighing in a special bomb. The viscosity was measured with a ВВДУ-1 (VVDU-1) high pressure viscosimeter, viz., in the case of temperatures varying between 0 and 60°C, at a constant pressure of 18 kg/cm², and in the case of pressures varying between 90 kg/cm² and saturation pressure, at a constant temperature of 20°C.

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22284

Determination of some...

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Fig. 2 shows the dependence of the viscosity on pressure at a temperature of 20°C, Fig. 3 the dependence of the viscosity on temperature at a pressure of 18 kg/cm². After evaluation of the results, the following A and C values of the equation $\mu_t = A \exp(C/T)$ were obtained:

Table 5

Liquefied hydrocarbons	$10^3 \cdot A$	C
commercial propane	5.241	882.70
commercial n-butane	9.517	852.19
hydrocarbon condensate	9.986	843.94

A. M. Mamedov is mentioned in this paper. There are 3 figures, 5 tables, and 8 Soviet-bloc references.

ASSOCIATION: Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova
(Azerbaydzhan Institute of Petroleum and Chemistry imeni
M. Azizbekov)

SUBMITTED: February 24, 1961

Card 2/4 2

ABDURASHITOV, S.A.; TUPICHENKOV, A.A.,

Limits of condition zones in movement of low-viscosity fluids
in steel pipes. Izv. vys. ucheb. zav.; neft' i gaz 7 no.10;
75-78 '64.
(MIRA 18:2)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

TUPICHENKOV, A.A.

Losses at some local points of resistance during flow of
condensed hydrocarbon gases through them. Izv. vys. ucheb.
zav.; neft' i gaz 4 no.9:101-106 '61. (MIRA 14:12)

1. Azerbaydzhanskiy institut nefti i khimii imeni Azizbekova.
(Gas, Natural--Pipelines)

ABDURASHITOV, S.A.; TUPICHENKOV, A.A.

Experimental determination of losses in pipelines during the flow
of liquified hydrocarbon gases. Izv. vys. ucheb. zav.; neft' i gaz
4 no.5:117-122 '61. (MIRA 15:2)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.
(Liquefied petroleum gas--Pipelines)

TUPIK, A.D., inzh.

Using synthetic diamonds at an engine plant. Mashinostroenie
no.6:29-31 N-D '65. (MIRA 18:12)

TURIK, F.

TURIK, F. Fulfilling planned tasks in all sectors of the forest economy. p. 49.

Vol. 12, no. 2, Feb. 1956

LES

AGRICULTURE

Czechoslovakia

See: East European Accession, Vol. 6, No. 5, May 1957

TUPIK, F.

"Report at the Meeting of Slovak Active Workers in Forestry and Woodworking Industries", Supplement, P. 1, 'LME', Vol. 1, No. 1, January 1954, Bratislava, Czech.)

SO: Monthly List of East European Accessions (EPAI), LC, Vol. 4, No. 3, March 1955, Uncl.

TUPIK, F.

"Struggling Relentlessly to Fulfill the Standards Set by the Party and Government in Every Working Establishment", P. 2, (L'S, V 1. 1, No. 1, January, 1954, Bratislava, Czech.)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.

TUPIK, F.

"Our Achievements Up to the Present Time and Our Plans for 1954." p. 217 (POLANA, Vol. 9, No. 10, Oct. 1953) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.

F. TUPIK

"In the fight for fulfillment of the fifth year of the Five-Year Plan." p. 1.
(POLANA, Vol. 9, no. 1, Jan. 1953, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions, Vol. 2, No. 7, July 1953, Uncl.

L.C.

TUPIK, F.

"Ensuring the fulfillment of the resolutions of the 10th Congress of the Czechoslovak Communist Party." p. 145; "For a better maintenance of forest roads." p. 147. (Polana. Vol. 9, no. 7/8, July/Aug. 1953. Praha.)

SO: Monthly List of East European Accessions, Vol. 3, No.2, Library of Congress, Feb. 1954,
Unclassified

TUPIK, N.D. [Tupyk, N.D.]

Auxin metabolism in the reproductive organs of sugar beets under
the conditions of inhibited growth. Ukr. bot. zhur. 22 no.5;
18-21 '65. (MIRA 18:10)

1. Institut botaniki AN UkrSSR, otdel biokhimii rasteniy.

ACCESSION NR: AP4012592

S/0021/64/000/002/0238/0241

AUTHOR: Eynor, L. O.; Tupik, N. D.; Kolesny*kov, P. O.

TITLE: Peroxidase of Chlorella

SOURCE: AN UkrRSR. Dopovid, no. 2, 1964, 238-241

TOPIC TAGS: Chlorella, algae, green algae, enzyme, peroxidase, peroxidase oxidation, ascorbic acid, pyrogallol

ABSTRACT: The present work continues earlier investigations of the enzymes of Chlorella. Peroxidase was detected and readily extracted from acetone preparations of Chlorella by a phosphate buffer. Ascorbic acid is possibly the natural substrate of peroxidase and the latter is active in a wide range of pH values when ascorbic acid is used for that purpose, but peroxidase cannot be detected in the acid pH region when pyrogallol is used to determine it. This indicates a peculiarity, not explained, of peroxidase oxidation in Chlorella cells. Orig. art. has 3 tables.

Card 1/2

ACCESSION NR: AP4012592

ASSOCIATION: Insty*tut botaniky* AN UkrRSR (Institute of Botany, AN UkrRSR);
Insty*tut biokhimiyi AN SRSR (Institute of Biochemistry, AN SSSR)

SUBMITTED: 17Jan63

DATE ACQ: 03Mar64

ENCL: 00

SUB CODE: AM

NO REF Sov: 007

OTHER: 000

Card 2/2

DROKOVA, I.G. [Drokova, I.H.]; POPOVA, R.TS.; TUPIK, N.D. [Tupyk, N.D.]

Carotene content in the alga Dunaliella salina Teod. under the
conditions of laboratory cultivation. Ukr. bot. zhur. 21
no. 5:44-49 '64. (MIRA 18:2)

1. Otdel biokhimii Instituta botaniki AN UkrSSR.

EYNOR, L.O.; TUPIK, N.D.; KOLESNIKOV, P.A. [Kolesnykov, P.O.]

Peroxides in chlorella. Dop. AN URSR no.2:238-241 '64.(MIRA 17:5)

1. Institut botaniki AN UkrSSR i Institut biokhimii AN SSSR. Predstavлено академиком AN UkrSSR D.K.Zerovym.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9

PAPKOV, S.F.; PISARENKO, N.F.; SAVENKO, I.A.; TUFIKIN, A.F.; SHAVRIN, F.I.

Radiometering equipment on the second Soviet satellite vehicle.
Isk.sput.Zem. no.9:78-85 '61. (MIRA 14:11)
(Artificial satellites--Radio observations) (Radiation--Measurement)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9"

TUPIKIN, A. F.

o, 6150

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S/560/61/000/C09/008/009
D045/D114

21.6000

AUTHORS: Papkov, S. F., Pisarenko, N. F., Savenko, I. A., Tupikin, A. F.,
and Shavrin, P. I.

TITLE: Radiometric equipment on the second Soviet space vehicle

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. No. 9,
Moscow, 1961, 78-85

TEXT: Radiometric equipment installed on the second Soviet space vehicle
for measuring the intensity of ionizing radiation and for determining the
absorbed dose is described. A block diagram of the transmitter system is
given in fig. 3. The scintillation counter (A) registered (1) charged par-
ticles penetrating the walls of the vehicle, (2) γ -quanta of more than 25
keV, and (3) the energy release of the above-mentioned particles. The CTG -5
(STS-5) gas discharge counters (B) registered charged particles. The other
scintillation counter (B) measured the energy flow of comparatively soft
charged particles. The operational theory of the transmitter system and
separate elements of the electronic system, operating on different types of
semi-conductor triodes and diodes, are described and illustrated. Before

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D045/D114

Radiometric equipment on ...

the equipment was installed on the space vehicle, it was tested for resistance to external effects such as vibrations, oscillations and temperature, and calibrated. The calibration system is described in full. The energy threshold of the registering channel of the scintillation counter was determined as follows:

$$E_{\text{threshold}} = \frac{V_1}{kV} \xi_0,$$

where V_1 = the threshold of the first trigger of the flip-flop system (in volts), k = the coefficient of amplification of the amplifier, V = value of the pulse at the input of the amplifier, and ξ_0 = energy of γ -quanta Cs¹³⁷ equal to 661 keV. The registering channel of the scintillation counter installed on board the second Soviet space vehicle had the following characteristics: $V_1 = 0.75$ v, $k = 100$, $V = 0.20$ v, and $E_{\text{threshold}} = 25$ keV. In their concluding remarks, the authors state that careful post-flight checks showed

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Radiometric equipment on ...

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S/560/61/000/009/003/009
D045/D114

that all equipment was still in good working order. Professor S. N. Vernov,
G. S. Vil'dgrube, A. G. Nikolayev, Yu. I. Logachev, and N. N. Goryunov are
thanked for their assistance in the research work. There are 5 figures and
1 Soviet reference.

SUBMITTED: April 3, 1961

Card 3/53

ROMANOVSKIY, V.I.; TUPIKIN, A.I.

Special-purpose semiautomatic multicut lathe. Stan. i instr. 36
no. 2:20-22 F '65. (MIRA 18:3)

ROMANOVSKIY, V.I.; SIDOROV, I.S.; TUPIKIN, A.I.

Device for rapid take-off of cutting tools. Avt. prom. 29
no.11:42-43 N '63. (MIRA 16:12)

1. Novosibirskiy stankostroitel'nyy zavod imeni XVI Parts"yezda.

BARD, Peys Ayzikovich; GANAY, Galina Nikiforovna; TUPIKIN, Georgiy Ivanovich; MANOKHIN, V., red.

[Chemistry in industry] Khimiia - proizvodstvu. Barnaul,
Altaiskoe knizhnoe izd-vo, 1965. 75 p. (MIRA 19:1)

KRIKUNOV, V.P.; BUTKEVICH, O.M.; TUPIKIN, G.V.

Results of treating infectious nonspecific polyarthritis with
a combination of preparations (deltabutazolidine, reosclane,
elastol). Vop. revm. 3 no. 3:37-40 Jl-S'63 (MIRA 17:3)

1. Iz kafedry fakul'tetskoy terapii (zav. - deyствител'nyy
chlen AMN SSSR prof. A.I. Nesterov) lechebnogo fakul'teta II
Moskovskogo meditsinskogo instituta imeni Pirogova.

KURASHOVA, M.V., kand. med. nauk; TUPIKIN, G.V. (Moskva)

Clinical aspects of myelomatosis. Klin. med. 41 no.4:119-
121 Ap '63.

(MIRA 17:2)

1. Iz kafedry fakul'tetskoy terapii lechebnogo fakul'teta
(zav. - deystvitel'nyy chlen AMN SSSR prof. A.I. Nesterov)
II Moskovskogo meditsinskogo instituta.

TUPIKIN, P.

Students' work on a school rabbit farm. Politekh. obuch. no. 4:90
Ap '5'. (MIR 19:7)

1. Verkhnyachskaya srednyaya shkola Khristinovskogo rayona Cherkass-
koy oblasti USSR.
(Rabbit breeding)

GORODETSKIY, Yu.S.; TUPIKINA, N.A.

Control of electroplating baths by the use of oscillographic
polarography. Uch.zap.Kish.un. 68:100-101 '63 [cover '64].
(MIRA 18:12)

BRAYNINA, R.A.; MARGULIS, L.A.; KOVALEVSKAYA, I.L.; MITEREVA, V.G.; FERDINAND,
Ya.M.; PUTRIN, N.G.; PAVLENKO, I.P.; TUPIKINA, V.A.; UDAVICHENKO, V.Ya.;
KOBYZEVA, O.V.

Epidemiological effectiveness of dried alcoholic divaccine, enriched
and nonenriched with Vi-antigens in school-age children and of Vi-
antigens in preschool-age children in a typhoid fever outbreak. Zhur.
mikrobiol., epid.i immun. 40 no.12:18-22 D '63. (MIRA 17:12)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta epidemiologii
i mikrobiologii.

TUPIKOV, A.G., ordinatör

Results of digital sphygmopalpation of arteries of the foot in persons
of middle and old age. Trudy Izhev.gos.med.inst. 13:118-122 '51.
(MIRA 13:2)

1. Iz kafedry fakul'tetskoy khirurgii Izhorskogo meditsinskogo institu-
ta. Zaveduyushchiy kafedroy - prof. S.A. Flerov.
(PULSE) (FOOT--BLOOD SUPPLY)

PAN'KOVSKIY, Vladimir Ivanovich; TUPIKOV, A.I., red.; PULIN, L.I.,
tekhn. red.

[Gas in industry and in the household] Gaz na proizvodstve i v
bytu. Tula, Tul'skoe knizhnoe izd-vo, 1959. 78 p.
(MIRA 15:12)

(Gas)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9

TRUFANOVA, Aleksandra Ivanovna; REZNIK, Mikhail Borisovich; TUPIKOV,
A.I., red.; PULIN, L.I., tekhn. red.

[Extending the life of metals] Prodlenie zhizni metalla. Tula,
Tul'skoe knizhnoe izd-vo, 1960. 110 p. (MIRA 14:5)
(Corrosion and anticorrosives) (Protective coatings)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757510006-9"

STUCHINSKIY, Abram Moiseyevich, vrach; KAPUSTIN, Vasiliy Grigor'yevich,
inzh.; TUPIKOV, A.I., red.; PULIN, L.I., tekhn.red.

[Advice for miners on the prevention of injuries and diseases]
Sovety shakhteru o preduprezhdenii travm i zabolеваний. Tula,
Tul'skoe knizhnoe izd-vo, 1959. 69 p. (MIRA 13:10)
(MINERS--DISEASES AND HYGIENE)

UL'YANTSEV, Petr Stepanovich; TUPIKOV, A.I., red.; PULIN, L.I.,
tekhn.red.

[The Moscow Basin yesterday, today, and tomorrow; popular study
of the coal industry in the Moscow region, its development in
the period between the 20th and the 21st Congresses of the CPSU,
and its future development in the seven-year plan] Mosbass
vchera, segodnia, zavtra; populjarnyi ocherk podmoskovnoi ugol'noi
promyshlennosti, ee razvitiia v period mezhdu XX i XXI s"ezdami
KPSS i perspektiv v semiletke. Tula, Tul'skoe knizhnoe izd-vo,
1960. 286 p.
(Moscow Basin--Coal mines and mining)

SHCHERBAKOV, Leonid Mikhaylovich; TUPIKOV, A.I., red.; PULIN, L.I.,
tekhn.red.

[Fundamentals of the physics of the nucleus] Osnovy fiziki
iadra. Tula, Tul'skoe knizhnoe izd-vo, 1958. 60 p.
(MIRA 13:3)
(Nuclear physics)

TUPIKOV, G.A.; NUZHNOV, P.N.; KAMCHATOV, K.N.

Operation of a hydraulic drive for support equipped with hydraulic control on an emulsion. Ugol' 40 no.1:49-53 Je '65.
(MIRA 18:4)

1. Podmoskovnyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut (for Tupikov, Nuzhnov).
2. Shakhta No.3 "Kamenetskaya" tresta Donskoyugol' (for Kamchatov).

TUPIKOV, M.A., prof.

Obtaining high grape yields in the second year. Biol. v shkole
no.2:75-77 Mr-Ap '58. (MIRA 11:4)
(Viticulture)

TUPIKOV, V.I.; TSIVENKO, V.I.; PSHEZHETSKIY, S.Ya.; KOTOV, A.G.;
MILINCHUK, V.K.

Formation and recombination of radicals in the γ -irradiation of
solid ammonia and hydrazine. Zhur.fiz.khim. 37 no.1:138-142 Ja
'63.
(MIRA 17:3)

1. Fiziko-khimicheskiy institut imeni Karpova.

S/190/63/005/001/010/020
B101/B186

AUTHORS: Milinchuk, V. K., Pshezhetskiy, S. Ya., Kotov, A. G.,
Tupikov, V. I., Tsivenko, V. I.

TITLE: Formation and recombination of free radicals by gamma-irradiation of polypropylene. I

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 5, no. 1, 1963, 71-74

TEXT: The effect produced by the amorphous and crystalline phases of irradiated polypropylene on the stabilization of free radicals was studied.

The polypropylene was irradiated with Co^{60} , dose rate 700 rad/sec, and the nuclear magnetic resonance spectra were taken at -195 and $+20^\circ\text{C}$.

Conclusions: With a dose of 350 Mrad, the radical concentration in amorphous polypropylene was $\sim 2 \cdot 10^{20}$ radicals per g, which is twice as much as in crystalline polypropylene. At 20°C , however, the radical concentration

in crystalline polypropylene was $\sim 5 \cdot 10^{18}$ radicals per g with a dose of 125 Mrad, which is one order of magnitude higher than in amorphous

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Formation and recombination of free ... S/190/63/005/001/010/020
B101/B186

polypropylene. Recombination in amorphous polypropylene irradiated at -195°C is faster than in crystalline polypropylene and is considerably accelerated, especially near the vitrification temperature. This is attributed to the fact that amorphous polypropylene at low temperatures promotes radical formation, whereas higher temperatures promote recombination. The e. p. r. spectra of crystalline polypropylene were found to change reversibly. The hyperfine structure of the e. p. r. spectrum taken at -195°C contained 9 lines, whereas at + 20°C 17 lines were found. There are 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova
(Physicochemical Institute imeni L. Ya. Karpov)

SUBMITTED: July 17, 1961

Card 2/2

ACCESSION NR: AT4034006

S/0000/63/000/000/0213/0219

AUTHOR: Pshezhetckiy, V. S.; Tupikov, V. I.

TITLE: The role of free radicals in the solid phase polymerization of acetaldehyde initiated by gamma-radiation

SOURCE: Geterotseptye vy* sokomolekulyarny*ye soyedineniya (Heterochain macromolecular compounds); sbornik statey. Moscow, Izd-vo "Nauka," 1963, 213-219

TOPIC TAGS: polymer, radiation polymerization, gamma radiation, ultraviolet radiation, radical, free radical, radical recombination, free radical formation, solid phase polymerization, polymerization catalyst, electron paramagnetic resonance analysis, acetaldehyde polymerization

ABSTRACT: In order to study the formation and recombination of free radicals during irradiation of crystalline acetaldehyde, samples solidified by slow immersion in liquid N (or amorphous samples obtained by rapid immersion) were gamma-irradiated (Co^{60} , 20,000 curies, 530 rad./sec) and the electron paramagnetic resonance spectra were determined. In the dosage range 0.1-10.0 Mrad. the concentration of free radicals corresponded in order of magnitude to the polymer chain concentration. Recombination of radicals was found to be discontinuous at

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ACCESSION NR: AT4034006

-125 to -150C (i.e. the polymerization temperature range). At radiation doses below 0.2 Mrad., chain termination was monomolecular, while at higher radiation doses a bimolecular process set in. Ultraviolet radiation also initiated the polymerization of crystalline acetaldehyde, the concentration and characteristics of the free radicals corresponding to those for gamma-radiation. These results indicate a "radical" pattern for polymerization initiated by gamma- or ultraviolet radiation. "The author expresses gratitude to V. A. Kargin and S. Ya. Pshezhet-skii for their valuable advice and evaluation." Orig. art. has: 2 tables, 5 graphs, 8 formulas and 5 chemical structures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University); Fiziko-khimicheskiy institut im. L. Ya. Karpova (Institute of Physical Chemistry)

SUBMITTED: 08Feb63

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: OC

NO REF Sov: 002

OTHER: 001

Card 2/2

KOTOV, A.G.; PSHEZHETSKIY, S.Ya.; MILINCHUK, V.I.; TUPIKOV, V.I.;
TSIVENKO, V.I.

Formation and recombination of radicals by γ -irradiation
of frozen H₂O₂ - H₂O solutions. Kin, i kat. 4 no.6:926-929
N-D '63. (MIRA 17:1)

1. Fiziko-khimicheskiy institut imeni Karpova.

Pr-4/Pu-4/Peb RPL W# JF6/GG/RM

ACCESSION NR: AP4047982

S/0076/64/038/010/2430/2436

AUTHOR: Tepikov, V. I. (Moscow); Pshozhetovskiy, S. Ya. (Moscow)

SOURCE: Journal of Macromolecular Science, Phys., Vol. 21(No. 4), p. 243-247

TOPIC PAGE: irradiation, radicals, chain scission, radical formation, EPR spectrum,
trioxane chain postpolymerization

ABSTRACT: In order to explain the nature of the active centers in irradiated trioxane an EPR study was made of the radicals formed upon γ -irradiation of a trioxane monocrystal at 196 C, and of the behavior of these radicals at different temperatures. Molecular ion radicals, the biradicals O-CH₂-O-CH₂-O-CH₃, and radicals generated by the dissociation of the C-H bond--paramagnetic structures giving a weakly split singlet, were formed. Formyl HCO radicals, resulting from the rupture of the trioxane ring, were also formed. On heating the γ -irradiated trioxane crystals to -70C the concentration of unpaired spins increased;

Cord 1/2

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ACCESSION NR: AP4047982

this increase in radical concentration was attributed to the recombination of the ions with the electrons freed from the trans. Above -70 C this concentration started to decrease. The molecular ion radicals and the radicals characterized by weak splitting of the singlet were retained on heating to +50 C; the initiation of the polymerization reaction can be attributed to this. Orig. art. has 3 figures.

ASSOCIATION:Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im.

L. Ya. Karpova (State-Scientific Physical-Chemical Institute)

SUBMITTED: 13Feb64

ENCL: 00

SUB CODE: GC, NF

NO REF SOV: 002

OTHER: 005

Card 2 / 2

Бюллетень № 12 за 1954 год
Апрель 1954 г.

AUTHOR: Tupikov, V. I.; Pshezhetskiy, S. Ya.

W ammonia and hydrazine